

REMARKS

Pending Claims

Claims 1-16 are currently pending.

Rejections under 35 U.S.C. § 103

The Examiner has rejected claims 1, 3-6, 8-11, and 13-16 under 35 U.S.C. § 103(a) as being obvious over Rudrapatna (US Appl. Publ. No. 2004/0092233) in view of Chen (USP 7,443,816) and further in view of Anim-Appiah (USP 7,295,517). Further, the Examiner has rejected claims 2, 7, and 12 as being obvious over Rudrapatna in view of Chen, further in view of Anim-Appiah, and still further in view of Tsien (USP 7,328,037). However, at least for the reasons presented herein, Applicant respectfully submit that the rejections are traversed. In responding to the rejections, Applicant make no concession that any of the cited references are prior art, and Applicant reserve the right to antedate any reference at a later date and to present additional reasons why the claims are patentable. Applicant's arguments submitted in response to the previous Office action with respect to the Rudrapatna, Chen, and Tsien references are incorporated herein by reference.

The Examiner argues that while the combination of Rudrapatna and Chen does not teach a transmission power changing part for changing a transmission power of the transmission data in accordance with a predicted error correction gain difference depending on the determined transmission rate, Anim-Appiah supplies this deficiency. Specifically, the Examiner argues that Anim-Appiah "teaches a transmission power changing part for changing a transmission power of the transmission data (see col. 14, lines 26-40 where the gain set module is the transmission changing part) in accordance with a predicted error correction gain difference depending on the determined transmission rate (see col. 14, lines 44-50)." Office action at p. 3.

However, the Examiner has mischaracterized the teachings of the Anim-Appiah reference. In particular, Anim-Appiah's teachings relate to a *receiver*, not a transmitter, and thus this reference fails to supply the deficiencies of the combination of Rudrapatna and Chen. The specific portions of the Anim-Appiah reference cited by the Examiner are from dependent claim 8 of the reference, which is directed to a baseband processor that is part of a

receiver for demodulating received data that was transmitted in the form of a packet. As can be seen in Figure 1 of Anim-Appiah, the baseband processor 116 is one of numerous components of the radio receiver 108 that are detailed in the diagram. On the other hand, the diagram of the transmitter 102 is a simple box without any details, consistent with the idea that the Anim-Appiah reference is not directed to a transmitter but rather to a receiver.

In addition, given the inherent differences in signal transmission and reception, one skilled in the art would not have looked to the teachings of Anim-Appiah, which pertain to signal reception, in order to produce the claimed inventions relating to signal transmission. Anim-Appiah discloses a method for producing a metric to assess the signal quality of a particular incoming signal channel using the preamble portion of data packets sent over the channel. Col. 3, lines 17-21. This method is used to determine which of several available communication channels to use when interference is present. However, there is no mechanism by which a transmitter can determine what interferences are present for a given receiver, since the various physical obstructions and other interfering factors are in many cases specific to the location of a particular receiver at a given time. For example, the Background section of Anim-Appiah mentions as one type of interference a large object such as a truck disposed between the transmitter and receiver, degrading the signal in one or more channels. Col. 1, line 51, through col. 2, line 2. This type of interference is a phenomenon that is particular to signal reception, and thus one skilled in the art would not have applied the teachings of Anim-Appiah to the present invention, which relates to signal transmission.

A further deficiency of Anim-Appiah is that this reference does not teach or suggest changing a transmission power of the transmission data in accordance with “a predicted error correction gain difference,” as recited in the claims. The Examiner cited column 8, lines 44-50 of Anim-Appiah as teaching changing transmission power “in accordance with a predicted error correction gain difference depending on the determined transmission rate.” However, this passage, which is part of dependent claim 8 and which reads as follows:

a sub-channel gain estimation module coupled to receive the digital baseband sample signal to estimate the gain estimation (h_i) for each sub-channel,

wherein the sequence estimator coupled to the preamble processing module to receive the frequency offset and the gain estimation for error correction of the discrete FFT sequence of the header and the data payload,

does not address predicted error correction gain difference. The “sub-channel gain estimation module” is not equivalent to “a predicted error correction gain difference,” since the “sub-channel gain estimation module” estimates channel gain from signal information that has already been collected and thus does not involve predictions.

Therefore, for at least the reasons given above, the combination of Rudrapatna in view of Chen further in view of Anim-Appiah does not render obvious any of independent claims 1, 6, 10, or 16.

Furthermore, each of the dependent claims is allowable for at least the reason that each depends from an allowable independent claim and because each contains additional patentable subject matter.

CONCLUSION

In view of the remarks presented herein, reconsideration and withdrawal of the pending rejections and allowance of the claims are respectfully requested. The Examiner is strongly encouraged to contact the undersigned at the phone number below should any issues remain with respect to the application.

No other fees are believed due in connection with this submission. However, if additional fees are owed, please charge Deposit Account 50-1965.

Respectfully submitted,
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